# Institute for Healthcare Improvement

# 3<sup>rd</sup> Annual Southeastern Regional Healthcare Improvement Case Competition

Institute for Healthcare Improvement Open School | Emory Chapter 2023-2024







2 Southeastern Regional Healthcare Improvement Case Competition

3 2024 Competition

## Who We Are



## Lauriane Pinto

### IHI Co-President

Lauriane is a third-year MD Candidate at Emory University School of Medicine. Prior to medical school, she was a healthcare strategy consultant at PwC and Health Advances, supporting the development and commercialization of novel medical devices, therapeutics, and diagnostics. Lauriane earned a BS in biology from Duke University, where she graduated with Honors and Departmental Distinction.



## Meg Winata

### IHI Co-President

Meg is a third-year medical student at Emory. Prior to medical school, Meg was a Surgical/Trauma ICU nurse for several years at Grady Memorial Hospital, where she implemented unit-based quality improvement projects as the Chair of the SICU Unit Council. Meg graduated from Emory with a B.A. in Music and a B.S. in Nursing.

- Who We Are IHI Open School: Emory Chapter
- 2 Southeastern Regional Healthcare Improvement Case Competition

3 2024 Competition

## **IHI Open School: Emory Chapter**

IHI is a national non-profit organization dedicated to advancing patient care through quality improvement. The IHI Open School Emory Chapter is an Emory-wide organization that represents students from all disciplines.

## Chapter Objectives

## Foster healthcare innovation:

Facilitate student access to & involvement in QI projects across Emory Healthcare and student clinics

## Provide open-access education:

Offer tools & educational resources to increase the quality and quantity of clinical & operational problem-solving

## Create an intellectual community:

Build bridges across Emory by forging an interprofessional community dedicated to healthcare improvement Our mission is to empower students to develop QI skills and knowledge surrounding real-world healthcare problems

### Faculty Advisors:



Fred Sanfilippo, MD, PhD

- Director, Healthcare Innovation Program (HIP), Rollins School of Public Health, Emory
- Professor, Pathology and Lab Medicine, Emory School of Medicine
- Professor, Health Policy and Management, Rollins School of Public Health, Emory



#### Bhavin Adhyaru, MD

- Medical Director, Quality Improvement at Grady, Emory University/Grady Health System
- Associate Professor of Medicine, General Medicine and Geriatrics, Emory School of Medicine



#### Corinne Abraham, DNP, RN

- Clinical Associate Professor, Nell Hodgson Woodruff School of Nursing, Emory
  University
- DNP Program Director, Nell Hodgson Woodruff School of Nursing, Emory University



2 Southeastern Regional Healthcare Improvement Case Competition

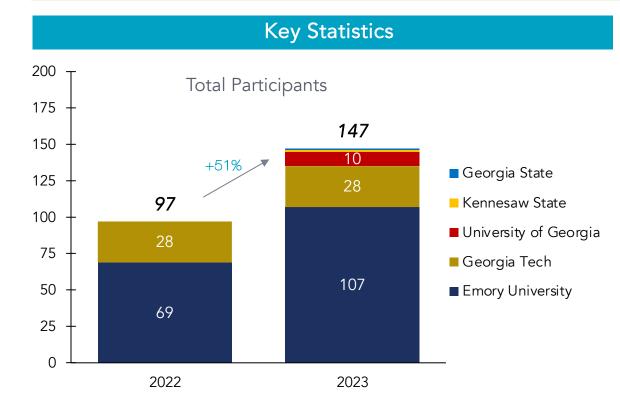
3 2024 Competition

## Southeastern Regional Healthcare Improvement Case Competition

The IHI Open School Emory Chapter hosts an annual interdisciplinary healthcare case competition, giving students the opportunity to design an innovative solution to a local healthcare issue.

## Overview

- Established in 2022, the Southeastern Regional Healthcare Improvement Case Competition is a student-led initiative aimed at educating and engaging undergraduate & graduate students in quality improvement and healthcare delivery innovation
- The competition seeks to fill gaps in health education by introducing students to the interdisciplinary factors that shape the modern delivery of care and prepare them for the interprofessional collaboration that will be required of them in their future careers



•

## Participant Eligibility & Awards

## Eligibility

- The competition is open to all undergraduate & graduate students from universities across the Southeast
- No prior healthcare background is required. However, each team must consist of members from **at least 2+ different schools** to provide each team with an equal opportunity to approach the case from both a healthcare and non-healthcare perspective

## Prize Money

- The final three teams with the highest scores are awarded cash prizes:
  - 1<sup>st</sup> prize: \$5,000
  - 2<sup>nd</sup> prize: \$2,500
  - 3<sup>rd</sup> prize: \$1,000

## **Case Competition Structure**

From the time registration closes, teams are given four weeks to research, develop, and present their proposal.

# Week 1 FIRST ROUND Week 2 SME SESSION Week 3 Week 4 FINAL PITCH

- Once the prompt is released, teams are tasked with **developing a proposal** that provides an elegant and thoughtful solution to the given problem
- They are given access to library of curated **public health data resources** to help inform their recommendation
- A student-led committee reviews first-round deliverables and **anonymously scores proposals** using an established rubric
- The **5 teams with the highest scores are selected as finalists** to pitch their proposals
- To guide deliverable development, teams can meet with faculty mentors / subject matter experts (i.e., physicians, epidemiologists, health services researchers, etc.) to receive feedback on first-round proposals in advance of their final presentation
- The finalist teams **pitch a live, in-person, 20-min presentation** to the Case Competition Judges followed by a 10-min Q&A session
- The Judges select the top three winning teams and present them each with a cash prize

STRUCTURE



2 Southeastern Regional Healthcare Improvement Case Competition

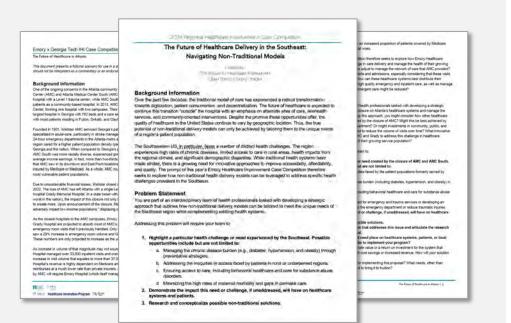
3 2024 Competition

## 2024 Case Competition: The Future of Healthcare Delivery in the SE

This year's prompt will challenge students to explore how non-traditional health delivery models can be leveragted to address specific health challenges prevalent in the Southeast.

## CASE PROMPT

**ASK:** develop a strategic approach outlining how nontraditional delivery models can be tailored to meet the needs of the SE while complementing existing health systems



## PROPOSAL REQUIREMENTS

- 1. Highlight a particular health challenge or need experienced by the Southeast
- 2. Demonstrate the impact this need, if unaddressed, will have on healthcare systems and patients.
- 3. Propose a viable non-traditional solution that addresses this issue and articulate the research and data to support your solution.
- 4. Consider the cultural, socioeconomic, and geographical factors that may impact the effectiveness of your solution.
- 5. Calculate the costs of the need if left unaddressed and outline a financing plan and to implement your program.
- 6. Sketch personas of the primary, secondary, and tertiary stakeholders your proposal would benefit, affect or whose buy-in you would need to implement it.

## Important Dates – March 2024



Friday, March 1, 2024 Registration Deadline



+

Monday, March 4, 2024 Team Formation & Prompt Release

- Individual or team registration to participate closes on Friday, March 1, 2024 at 11:59pm
- Interested students can register as a team or as an individual. The Case Competition Organizing Committee will place registered individuals on finalized teams
- The Case Competition Planning Committee will assemble and announce finalized teams of 3-5 students. Teams will be notified of their formation and sent the case prompt via email
- The competition will begin that evening with a recorded Kick-Off Meeting held over Zoom
- Teams will be given one week to research, develop, and submit their first-round proposal
- The first-round proposal will consist of a 5-15 slide PowerPoint presentation with a supporting 5-10 minute recorded pitch
- Proposals must be submitted on Monday, March 11, 2024 at 11:59pm





Monday, March 11, 2024

First-Round Deadline

- The five teams with the highest-scored proposals will be selected as finalists to pitch their presentations in-person



Monday, March 25, 2024 Finalist Presentation

- The top five teams will pitch an in-person 20-minute presentation to the Case Competition Judges followed by a 10-minute Q&A session
- The Judges will select the three winning teams and present them each with a cash prize

## 2024 Competition: Regional Partnerships

Given the success of the past two years, we hope to expand the competition into the Southeast region by partnering with universities and institutions outside of Georgia.



Through these partnerships, we hope to enable the longevity of the Southeastern Regional Healthcare Improvement Case Competition, inspiring students to put what they have learned into practice by solving the region's most pressing healthcare problems

## **Past Competitions**

### 2023 COMPETITION



### 2022 COMPETITION





2 Southeastern Regional Healthcare Improvement Case Competition

3 2024 Competition

## 2023 Case Competition: The Closure of Atlanta Medical Center

Last year's prompt challenged students to address the closure of Wellstar Atlanta Medical Center (AMC) and Atlanta Medical Center South (AMC South).

## CASE PROMPT

**MAIN ASK:** develop a strategic approach to mitigate the impact of AMC's closure on Atlanta's healthcare systems and manage the care of their patient populations.

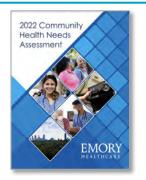


## PROPOSAL REQUIREMENTS

- A particular challenge or need created by the closure of AMC + AMC South and the impact of this need or challenge on healthcare systems + patients
- 2. Possible solutions that address this need
- 3. The costs of the need if left unaddressed, and a financing plan to implement your program

## PROVIDED DATA

- 2022 Community Health Needs Assessments for:
  - Grady Memorial Hospital
  - Emory Healthcare
  - Wellstar Atlanta Medical Center



## 2023 Case Competition: SMEs & Judges



### Ben Druss, MD, MPH

Benjamin Druss is Professor and Rosalynn Carter Chair in mental health in the Department of Health Policy and Management at Rollins School of Public Health, Emory University. As one of only a handful of psychiatrists in the country based in a school of public health, Dr. Druss is working to integrate mental health, physical health, and public health. His research has focused on understanding and improving access, quality, and outcomes of care for populations with serious mental illnesses and medical comorbidity.

### Carolyn Clevinger, DNP, RN



Dr. Clevenger is a clinical track professor and gerontological nurse practitioner. She is a nationally recognized educational leader in advanced practice nursing and in geriatrics and gerontology. She is a Past President of the Gerontological Advanced Practice Nurses Association, Fellow of the American Association of Nurse Practitioners (AANP) and the Gerontological Society of America, and contributor to the AANP Certification Program. She is the director of the nurse-led patient centered medical home for people living with dementia, the Integrated Memory Care Clinic

### Joshua Wallenstein, MD



Dr. Wallenstein joined the Emory University School of Medicine faculty in 2004. He received his MD at Rutgers Robert Wood Johnson Medical School and completed his emergency medicine residency at The Mount Sinai School of Medicine in New York. Dr. Wallenstein's primary academic interest is the professional and career development of medical trainees and academic physicians. He provides career and promotion mentorship for junior and mid-career faculty within the Department of Emergency Medicine, where he serves as Associate Chair of the Appointments, Promotion, and Tenure Committee.

## Nathan Spell, MD



Nathan Spell, MD, is a graduate of Harvard Medical School and trained in internal medicine at the Brigham and Women's Hospital in Boston. He is a Fellow of the American College of Physicians. Dr. Spell is professor of medicine, a primary care internist, and is the associate dean for education and professional development in the School of Medicine. He serves as executive director for Continuing Medical Education at Emory. From 2006 to 2016 he served as Chief Quality Officer of Emory University Hospital, quality improvement activities, including oversight of projects, internal consultation, and development & delivery of training programs.



### Fred Sanfilippo, MD, PhD

Dr. Fred Sanfilippo's career has been as a physician-scientist and academic leader. He is also the Director of the Emory-Georgia Tech Healthcare Innovation Program, which has been developed with support from the Woodruff Fund and in coordination with the Georgia CTSA to enhance innovation in healthcare delivery research, education, and service. As a leader, Dr. Sanfilippo has been active in academic medicine, transplantation, and pathology. He has served on the editorial board of 13 professional journals, been invited to speak at some 200 academic and scientific venues, and elected president of seven academic and professional organizations.



### David Murphy, MD

Dr. Murphy is an Assistant Professor of Medicine at Emory University in the Division of Pulmonary, Allergy, Critical Care and Sleep Medicine. He is a physician, researcher, and expert in healthcare quality and patient safety. In 2011, Dr. Murphy was recruited to join the Emory University faculty as Assistant Professor of Medicine. He serves in a number of leadership positions at Emory including Director of Quality for the Emory Critical Care Center, Director of Research for the Emory Healthcare Office of Quality, and Director of Critical Care Quality at Grady Memorial Hospital.



### Victoria Phillips, PhD

Dr. Victoria Phillips is an Associate Professor in the Department of Health Policy and Management at the Rollins School of Public Health of Emory University. She specializes in the areas of evaluation and economic evaluation. She currently works as a guest researcher in the Division of Integrated Surveillance Systems and Services in the National Center for Public Health Informatics.

#### Penny Castellano, MD

Dr. Castellano joined the Emory faculty in July 1990. She served as Director of Residency Training, Crawford Long Hospital of Emory University 1992-1995. She was Medical Director of Emory Clinic North from 1997-2001 and Section Chief of Primary Care 1998-2002, when she transitioned to several Chief Medical Officer and Chief Quality Officer roles for the Emory Clinic and affiliated group practices. She currently serves as Associate Director and Chief Medical Officer for The Emory Clinic and Emory Specialty Associates. In November of 2016, she additionally began serving as Interim Chair for the Department of Gynecology and Obstetrics.



## 2023 Case Competition: SMEs & Judges



#### Laika Steiger, MBA

In her current role as the Associate Dean for Clinical Practice Operations and the Executive Director of the Emory Nursing Learning Center, Laika leads several areas for the School of Nursing including the Office of Clinical Affairs, Emory Nursing Experience, the Emory Nursing Professional Development Center (ENPDC), the Wound, Ostomy, and Continence Nursing Education Center (WOCNEC), and the Simulation Program at the Emory Nursing Learning Center (ENLC). Previously, Laika led the training team at WellStar Health System as it's Assistant Vice President of Organizational Learning Operations.



#### James Steinberg, MD

Dr. Steinberg is a Professor Emeritus at Emory University School of Medicine and serves as a Hospital Epidemiologist and Chief Medical Officer at Emory University Hospital Midtown. As an Infectious Disease physician, Dr. Steinberg's research focuses on the prevention of health care associated infections (HAIs) with a quality improvement focus on reducing the impact of these infections. He was an integral part of the team that led to Emory's funding and designation by the CDC as a Prevention Epicenter.



### Cheryl Hiddleson, MSN, RN

Cheryl is the Director of the Emory elCU Center. She has been a registered nurse in Georgia for 34 years. She practiced at the bedside for 20 years with a primary focus on critical care. She also has a background in patient logistics and flow management. Cheryl was directly responsible for the development of the Emory elCU Center and continues to have clinical and operational oversight of the program. Over the last 5 years she has also become involved in research and development of various remote monitoring and predictive analytic applications focused on reducing serious complications for critical care patients.

### Lynda Barrett, MBA



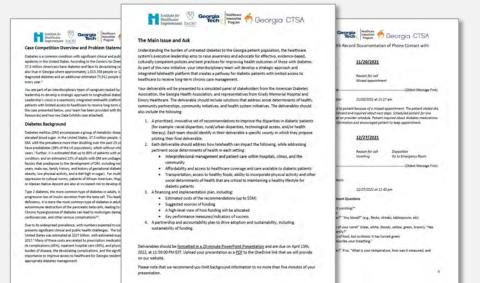
Lynda is Associate Vice President for Strategic Planning for the Woodruff Health Sciences Center and Vice President for Strategic Planning for Emory Healthcare. She has over 25 years of experience in the healthcare industry. She joined the Strategic Planning Office in the Woodruff Health Sciences Center of Emory University in 2008, but has worked in strategic planning for almost 20 years. She facilitates the development of strategic plans for the Woodruff Health Sciences Center. She also manages the annual strategic planning cycle activities for Emory Healthcare, including the Strategic Plan development, Annual Operating Plan, Environmental Assessment, and Balanced Scorecard activities.

## 2022 Case Competition: Disparities in Diabetes Care

Previous year's prompt challenged students to develop a novel solution that addresses disparities in diabetes care within the Georgia population.



MAIN ASK: a novel and integrated telehealth platform that creates a pathway for diabetic patients with limited access to healthcare to receive long-term chronic care management



## PROPOSAL REQUIREMENTS

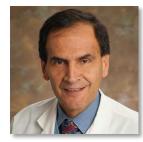
- 1. A prioritized set of recommendations to improve the disparities in diabetic patients within the Georgia population
- 2. A visionary financing implementation plan
- 3. A recommendation that encompasses partnership with a local entity
- 4. Considers social determinants of health necessary for maintaining a healthy lifestyle for diabetic patients

## PROVIDED DATA

- De-identified EHC patient data
- GA public health information:
  - Demographics
  - Income & Poverty
  - Population
  - Technology Usage

County Characteristics	- Collin Collin	ry Det	In Country   Full	on County 🕒 limite	MIE COUNTY -	
Fogulation		766,149	764,382	1.066.710	957,062	
Population Over 21 Years of Age		554,913	558,800	790.653	648,550	
Population Denning, 2010 (per square mile)		2,826	2385	1,748	1.875	
Member Population Characteristics	Cable Come		alla County 🔄 Fult		orth County D	
Education Britine HS diploma		41,035	\$1,911	44,544	23,127	
High School Graduate Decludes equivaler	peril.	81.618	113.368	111.04.0	154.414	
Bachelor's Degree	Patient Data					
Graduate of Professional Degree	Variante	Depty	Dick Net	December		And the second sec
Language Other Than English Spoken at F	Pattern DeiD	manufaction (		On identified patient (). A single patient's () is britable prova thereis		
Spanish as Primary Language at Home	Patterd Age	numeric		Age as of EU(2022. Any age 30 or older is resulted as +89 Water's indicated gender Paramit's and total and a second second second as a second second Rater's indicated antity group Require(, / non-hegamic) Water's the guarter Taxa as accounted (KD 2) calls for hypertension		
Households with No Whicle Available for	Genuler	Indulter				
Veterans	Race	Afraragter				
Sea vatto (maxes per 500 females)	Entrait Grand	character				
White, Not Hispanic or Latins	HTN	16/3	G = mik 1 = yes			
Aniate	PCP	93	0 = mo, 1 = yes	Whether the patient has a locumented primary cars provider at Errory Hestificans		
Hispanial or Latino	DM Type 1	60	0 + ma, 3 + yes.	Whether the patient has a socumented (CD-3b rode for Type-1 diabetes		
Black or African American	DAI Type 2	2/3	0 - mit 1 - ym	Whether the patient has a documented KD-38-code for Type 2 italietes		
Two or more rates.	Peripheral Neuropathy	03	17 = mo, 1 = yes	Whether the patient has a documented KD-30 code for peripheral neuropathy		
American Indian and Alaskan Native	Enils DelD	ALCORAGE	"/" + manung	On identified provider ID for them most recent entitienteology miss sout		
Native Hossailar and Other Parific Islands	Last Endo Volt Data DelD	deter	17 Pressing	Date of last undescriptings cities visit		
	Last Poot Exam DelD	0.02	774 mining	Date of last diabetic flot even		
	Lett for Exem DerD	16/10	Triming	Over of last retinal eye instru		
	Total Clinic Visits	rumetic	Vienzig	Total number of all clinic usits by the parlient for 2023.		
	Sital Heigitalizations	numeric	17 victoring	Total number of all inpatient hospitalcations by the patent in 2021		
	Total SO Day Readministra	humaric.	174 mining	Total member of readmissions to the hospital within 30 days post discharge by the patient		
	Telemedicine Voit	6/3	0 + ma, 3 + yes.	Whether the patient had a visit coded as a telemeticine unit in 2021		

## 2022 Case Competition: SMEs & Judges



#### Guillermo Umpierrez, MD

Dr. Guillermo Umpierrez is a Professor of Medicine at Emory University School of Medicine, a renowned expert in the management of diabetes mellitus in the hospital setting, epitomizes the attributes of a physician scholar through his research, teaching, and lifelong learning. His research evaluating therapeutic approaches for hyperglycemia in the hospital setting established the superiority of the basal-bolus insulin regimen over the longstanding approach of "sliding-scale insulin" for managing patients with type 2 diabetes hospitalized with a non-critical illness.



### Elizabeth Woodcock, DrPH, MBA, FACMPE, CPC

Elizabeth Woodcock is the principal of Atlanta-based Woodcock & Associates. Widely considered an industry leader in practice management, she is the author or co-author of 18 practice management books. In addition to a BA from Duke University, Elizabeth completed a MBA degree in healthcare management from the Wharton School of Business of the University of Pennsylvania and a Doctor of Public Health from the Johns Hopkins University Bloomberg School of Public Health.

#### Jessica Harding, PhD



Dr. Jessica Harding is an Assistant Professor in the Department of Surgery/Medicine at Emory University. She is an epidemiologist with extensive experience conducting chronic disease research. She received her PhD from Monash University and completed a post-doctoral research fellowship at the Centers for Disease Control and Prevention where she studied population-level trends in diabetes and related complications in US. Dr. Harding is a recipient of the Pilot & Feasibility Program Grant from the Georgia Diabetes Translation Research Center at Emory where she will examine the impact of the COVID-19 pandemic on diabetes care processes.



#### Nathan Spell, MD

Nathan Spell, MD, is a graduate of Harvard Medical School and trained in internal medicine at the Brigham and Women's Hospital in Boston. He is a Fellow of the American College of Physicians. Dr. Spell is professor of medicine, a primary care internist, and is the associate dean for education and professional development in the School of Medicine. He serves as executive director for Continuing Medical Education at Emory. From 2006 to 2016 he served as Chief Quality Officer of Emory University Hospital, quality improvement activities, including oversight of projects, internal consultation, and development & delivery of training programs.



### Fred Sanfilippo, MD, PhD

Dr. Fred Sanfilippo's career has been as a physician-scientist and academic leader. He is also the Director of the Emory-Georgia Tech Healthcare Innovation Program, which has been developed with support from the Woodruff Fund and in coordination with the Georgia CTSA to enhance innovation in healthcare delivery research, education, and service. As a leader, Dr. Sanfilippo has been active in academic medicine, transplantation, and pathology. He has served on the editorial board of 13 professional journals, been invited to speak at some 200 academic and scientific venues, and elected president of seven academic and professional organizations.

### David Murphy, MD

Dr. Murphy is an Assistant Professor of Medicine at Emory University in the Division of Pulmonary, Allergy, Critical Care and Sleep Medicine. He is a physician, researcher, and expert in healthcare quality and patient safety. In 2011, Dr. Murphy was recruited to join the Emory University faculty as Assistant Professor of Medicine. He serves in a number of leadership positions at Emory including Director of Quality for the Emory Critical Care Center, Director of Research for the Emory Healthcare Office of Quality, and Director of Critical Care Quality at Grady Memorial Hospital.

### Sol Jacobs, MD

Dr. Sol Jacobs, MD is an Associate Professor in the Department of Medicine at Emory University School of Medicine. Dr. Jacobs serves as Section Chief of the Endocrine Unit at Emory University Hospital Midtown. His clinical interests include thyroid disorders, pituitary disorders, diabetes mellitus, Grave's disease, neuroendocrinology and osteoporosis. Dr. Jacobs earned his medical degree from Emory University School of Medicine in Atlanta, GA. He completed his internship and residency at Boston City Hospital, Boston, MA.

#### Michael J. Carr, MD

Michael J. Carr, MD is Assistant Professor in the Department of Emergency Medicine and the Section of Prehospital and Disaster Medicine at Emory University. Dr. Carr is a graduate of Siena College in Loudonville, New York. He completed medical school at St. Georges University School of Medicine. Dr. Carr completed his residency training in Emergency Medicine at Newark Beth Israel Medical Center and subsequently completed a one-year fellowship in EMS and Disaster Medicine at the same location. Currently, Dr. Carr is the Associate Medical Director of Air Life Georgia, covering six helicopter bases in the Atlanta metro area.



